

What is claimed is:

1 1. A method for providing a plurality of service functions to a
 2 plurality of users by a storage system, comprising:
 3 receiving a request by a user of said plurality of users for performance of a
 4 service function of said plurality of service functions;
 5 checking if said service function is allowed by said storage system
 6 according to a usage constraint, said usage constraint comprising a storage area needed by
 7 said service function; and
 8 when said service function is allowed, performing said service function by
 9 said storage system.

1 2. The method of claim 1 wherein said usage constraint further
 2 comprises a user number limitation for said service function.

1 3. The method of claim 1 wherein said receiving said request by said
 2 user is via a server provider system (SPS).

1 4. The method of claim 1 wherein said usage constraint comprises all
 2 other storage areas needed by all current user of said service function on said storage
 3 system.

1 5. The method of claim 4 wherein said usage constraint is an
 2 accumulation of storage areas of users of said service function.

1 6. The method of claim 1 wherein all of said plurality of service
 2 functions are turned on in said storage system.

1 7. A method for providing a service function to a user by a storage
 2 system, comprising:
 3 receiving a request by a user for performance of a service function;
 4 checking if said service function is allowed by said storage system
 5 according to a usage constraint, said usage constraint comprising a storage area needed by
 6 said service function; and
 7 when said service function is allowed, performing said service function by
 8 said storage system.

1 8. The method of claim 7 wherein said usage constraint further
2 comprises a user number limitation for said service function.

1 9. A service provider system for providing a plurality of service
2 functions to a plurality of users, comprising:
3 a storage system comprising said plurality of service functions, wherein a
4 service function of said plurality of service functions has a predetermined limit on a
5 number of said plurality of users that have access to said service function; and
6 a service provider server for providing said plurality of users with said
7 plurality of service functions of said storage system.

1 10. The service provider system of claim 9 further comprising, a
2 second storage system comprising said plurality of service functions, wherein all service
3 functions of said plurality of service functions have been activated for use.

1 11. The service provider system of claim 9 wherein said storage system
2 further comprises a user access information table for managing data of users of said
3 plurality of users having access to said storage system.

1 12. The service provider system of claim 9 wherein said service
2 provider system further comprises a data management table including information for
3 identifying a user of said plurality of users, information on said service function, and
4 information for managing data on the user.

1 13. The service provider system of claim 9 wherein storage system
2 further comprises a user access information table comprising information for identifying a
3 user of said plurality of users and a service function bit map for determining activated
4 service functions of said plurality of service functions for said user.

1 14. The service provider system of claim 13 wherein said user access
2 information table further comprises an area capacity for each activated service function.

1 15. A storage system for providing a plurality of service functions to a
2 plurality of users via a service provider system, comprising:

a user access information data structure indicating for a service function of said plurality of service functions selected users of said plurality of users that have access to said service function;

a controller for checking said user access information data structure, when receiving a request from said service provider system for access by a user of said plurality of users to said service function; and

a storage unit having a storage area for use by said service function, when said controller indicates said user has access to said service.

16. The storage system of claim 15 wherein said user access information data structure further comprises a cumulative storage area value for some users of said plurality of users having access to said service function.

17. The storage system of claim 16 wherein said controller checks for user access permission to said service function based on a result dependant upon a number of said some users having access and said cumulative storage area value for said some users.

18. The storage system of claim 15 wherein said result is dependant upon a position with respect to a curve of cumulative storage capacity versus number of users, said curve representing a license from a vender to said service provider.

19. The storage system of claim 15 wherein said user access information data structure is a table.

20. A method for providing a plurality of service functions on a plurality of storage systems to a plurality of users via a service provider system, said method comprising:

said service provider system receiving a request for performance of a service function of said plurality of service functions from a user of said plurality of users;

determining a selected storage system of said plurality of storage systems based on said user and said service function;

calculating a storage area needed by said service function; and

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3 plurality of service functions, by a storage system, said computer program product
4 comprising:
5 code for said plurality of service functions stored on said storage system;
6 code for a access table comprising authorized customers of said plurality
7 of customers that have access to a service function of said plurality of service functions
8 and a total capacity of storage area needed by said authorized customers when using said
9 service function; and
10 code for a license checking routine for receiving a customer request for
11 said service function from said service provider system, and determining if said customer
12 request is within a license limit, said license limit having a plurality of combinations for
13 said service function dependent on a number of users versus total storage capacity
14 allowed for said number of users.

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